

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph on page 5, lines 15-24 with the following amended paragraph:

The filter updating part 203 updates the separating filter coefficients using the steepest ascent rule with natural gradient by the following equation:

$$w_{ij,p}(k+1) = w_{ij,p}(k) + \mu \Delta w_{ij,p}(k) \quad (6)$$

for $1 \leq i \leq m$, $1 \leq j \leq n$, $0 \leq p \leq L-1$, where μ is the step size and $\Delta w_{ij,p}(k)$ is the natural gradient defined by the following equation:

$$\Delta w_{ij,p}(k) = w_{ij,p}(k) - \sum_{l=1}^m \sum_{q=0}^p \bar{y}_l(k) \bar{u}_l(k-p+q) w_{lj,q}(k) \quad (7)$$

$$\Delta w_{ij,p}(k) = w_{ij,p}(k) - \sum_{l=1}^m \sum_{q=0}^p \bar{y}_l(k) \bar{u}_l(k-p+q) w_{lj,q}(k) \quad (7)$$

Where $\bar{y}_l(k)$ and $\bar{u}_l(k)$ are the frequency-domain normalized versions, having flat spectrum, of $y_l(k)$ and $u_l(k)$, respectively. Note also that the filter lag q in equation (7) is limited up to p not up to $L-1$. In this invention the separating filter is unidirectional of length L . Thus no sample delay is required.